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(21) International Application Number: PCT/GB97/03400 (22) International Filing Date: 10 December 1997 (10.12.97) (30) Priority Data: 9625640.9 10 December 1996 (10.12.96) GB (71) Applicant (for all designated States except US): CELLTECH THERAPEUTICS LIMITED [GB/GB]; 216 Bath Road, Slough, Berkshire SL1 4EN (GB). (72) Inventors; and (75) Inventors/Applicants (for US only): KING, David, John [GB/GB]; 69 Watchetts Drive, Camberley, Surrey GU15 2PF (GB). CHAPMAN, Andrew, Paul/[GB/GB]; 48 Hanworth Road, Hampton, Middlesex TW12 3DL (GB). (74) Agent: MERCER, Christopher, Paul; Carpmaels & Ransford, 43 Bloomsbury Square, London WC1A 2RA (GB).		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>
(54) Title: MONOVALENT ANTIBODY FRAGMENTS (57) Abstract <p>Monovalent antibody fragments are described, each of which has one or more polymer molecules site-specifically attached through a sulphur atom of a cysteine residue located outside of the variable region domain of the antibody. The polymers include synthetic or naturally occurring polymers such as polyalkylenes, polyalkenylenes, polyoxyalkylenes or polysaccharides. Each fragment may be attached to one or more effector or reporter molecules, and is of use in therapy or diagnostics where it has markedly improved binding and/or pharmacokinetic properties when compared to other antibody fragments which have the same number and type of polymer molecules, but in which the polymer molecules are randomly attached.</p>		